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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,122	09/08/2003	Wei-Chih Chang	4006-265	8657
22429	7590	06/02/2005		
LOWE HAUPTMAN GILMAN AND BERNER, LLP 1700 DIAGONAL ROAD SUITE 300 /310 ALEXANDRIA, VA 22314			EXAMINER WANG, GEORGE Y	
			ART UNIT	PAPER NUMBER
			2871	

DATE MAILED: 06/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/656,122

Applicant(s)

CHANG ET AL.

Examiner

George Y. Wang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 1-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-19 is/are rejected.
- 7) ☒ Claim(s) 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Claims 14-19 in the reply filed on March 8, 2005 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim Objections

2. Claim 14 is objected to because the limitation "substrate and said second substrate" appears to be incomplete or not does bear any particular purpose in the claim. Appropriate correction is required. Since the claim already recites a first and second substrate, the questionable limitation will not be considered in the examination.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical

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Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 14-15 and 17-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Kubota et al. (U.S. Patent No. 6,771,334, hereafter "Kubota").

5. As to claim 14, Kubota discloses a liquid crystal display (LCD) device (fig. 3, ref. 1) that comprises a first substrate (fig. 3, ref. 2), a second substrate (fig. 3, ref. 5), a plurality of reflection regions (fig. 3, "reflective display region") formed over the first substrate, a plurality of transmission regions (fig. 3, "transmissive display region") formed over the first substrate, a transparent conductor layer (fig. 3, ref. 3b) formed on the transmission region, the reflection region including a plurality of reflection electrodes (fig. 3, ref. 20), an orientation layer (fig. 3, ref. 7a, 7b) formed over the reflection electrodes and the transparent conductor layer where the orientation layer formed over the reflection electrodes has a first orientation direction and the orientation layer formed over the transparent conductor layer has a orientation direction, where the first orientation differs from second orientation (col. 11, lines 52-60).

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6. As per claim 15, Kubota discloses the LCD as recited above where the first orientation direction is adjusted and determined the liquid crystal angle between about 70 degrees and 90 degrees ("88 degrees," col. 11, lines 57-59).

7. Regarding claims 17-18, Kubota discloses the LCD as recited above where the orientation layer formed over the first substrate has concave and convex structures (fig. 3, ref. 25) and where a first rubbing force is applied to the orientation layer to form a first orientation direction and a second rubbing force is applied to change the first orientation to a second orientation direction (col. 4, lines 17-19).

8. As to claim 19, Kubota discloses the LCD as recited above where a UV light with a first polarized direction illuminates the orientation layer for form a first orientation direction and a UV light with a second polarized direction using the reflection electrodes as masks illuminates the orientation layer to form a second orientation direction (col. 4, lines 12-17; col. 9, line 57 – col. 10, line 3).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kubota in view of Arai (U.S. Patent No 6,717,641).

Kubota discloses the LCD as recited above where the second orientation direction is adjusted and determined to have the liquid crystal angle at about 5 degrees (col. 11, lines 58-60), however the reference fails to specifically disclose the second orientation direction is adjusted and determined to have the liquid crystal angle between about 10 to 70 degrees.

Arai discloses an LCD device (title) where the orientation direction in the transmissive area is adjusted and determined to have the liquid crystal angle between about 10 to 70 degrees ("45 degrees," col. 6, lines 21-29).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the second orientation direction of Kubota adjusted and determined for the liquid crystal angle between about 10 to 70 degrees since one would

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be motivated to provide a bright achromatic white display (col. 6, lines 53-55).

Ultimately, this generates a display to perform an achromatic metallic tone with high contrast within a bright diffused white background to improve the visual design and fashion of the LCD (col. 2, lines 54-58).


Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Y. Wang whose telephone number is 571-272-2304. The examiner can normally be reached on M-F, 8 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on 571-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

gw
May 23, 2005


TARIFUR R. CHOWDHURY
PRIMARY EXAMINER